

HIGH EFFICIENCY HIGH SPEED LOW NOISE REGULATORABSTRACT OF THE DISCLOSURE

A voltage regulator includes a linear mode regulator having a high pass filter circuit connected between its output and an output node, and a switch mode regulator
5 having an low pass filter circuit connected between its output and the same output node. The high pass filter passes high frequency AC current provided by the linear mode regulator to the output node and reduces the low frequency AC and DC currents to substantially zero, and the
10 low pass filter prevents the high frequency AC current produced by the linear mode regulator from being drawn by the switch mode regulator and passes the low AC and DC currents provided by the switch mode regulator to the output node. Thus, the present regulator offers the high
15 response speed and low noise of a linear mode regulator, and the high power efficiency and large continuous output current capability of a switch mode regulator.